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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/554,063	10/24/2005	Tatsuhiko Takahashi	Q75351	6555
23373 7590 03/21/2008 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER NILAND, PATRICK DENNIS	
			ART UNIT 1796	PAPER NUMBER
			MAIL DATE 03/21/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/554,063

**Applicant(s)**

TAKAHASHI ET AL.

**Examiner**

Patrick D. Niland

**Art Unit**

1796

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 December 2007 and 14 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3,7-13 and 15-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,7-13 and 15-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 7/20/07
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/13/07 and 1/14/08 has been entered.

The amendments of 12/13/07 and 1/14/08 have been entered. Claims 1, 3, 7-13, and 15-18 are pending.

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1, 3, 7-13, and 15-18 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-15 of copending Application No. 10/553868. Although the conflicting claims are not identical, they are not patentably distinct from each other because, although the claims differ in scope, they are generally drawn towards the same fibers and the fibers in resins which encompass those of the

instant claims. Since the ingredients overlap, the instantly claimed physical parameters are expected to be necessarily and inherently possessed by the compositions and methods of the copending claims. The applicant's arguments have been fully considered but are not persuasive. The copending claims contain the instantly claimed graphitized carbon fiber as the enabling specification therefore describes the graphitized fibers of the instant claims as being encompassed by the copending claims. The examiner does not see any basis to determine that the annealing of the instant claims gives a different product than removing the binder composition from solvent of the copending claims gives since crystallization from bulk melt or solvent are both expected to give essentially the same products. It is noted that the graphite fiber of the copending claims is expected to necessarily and inherently give the crystallization attributed to it by the applicant since it is the same thing as in the instant claims. The examiner sees not probative evidence that the products of the instant claims are different from the products of the copending claims though the methods of making them are clearly different. See MPEP 2113 regarding product by process claims. Applicant has not specifically pointed out why this rejection is improper. This rejection is therefore maintained.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-2 and 7-13, and 15-18 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat. No. 5458967 Kanno et al..

Kanno discloses carbon fibers from vapor phase growth methods having the instantly claimed diameters and aspect ratios at the abstract; column 1, lines 9-67, particularly 16-29 and 64-67; column 2, lines 1-67, particularly 1-60; column 3, lines 40-67; column 4, lines 1-67; and the remainder of the document. Since the components of the patentee are those of the instant claims, they are expected to necessarily give the instantly claimed crystallization promotion and therefore X-ray peaks when they are in the resins of the patentee. All resins have amorphous character. The exemplified kneading temperatures read on the instantly claimed annealing. The instant claims are directed to the compositions per se, not the methods of making them. It is not seen that the annealing temperature range of the reference gives a materially different product than that of the instant claims. There is no probative evidence that the products of the patentee are different from those of the instant claims even if the annealing temperature of the patentee does not fall within the scope of the instant claims. See MPEP 2113. Since the compositions of the patentee are otherwise those of the instant claims, they are expected to inherently have the tribology of the instant claim 17. The articles of the patentee are those of the instant claim 18. The argued examples and comparative examples are not commensurate in scope with the instant

claims and the cited prior art. The applicant's arguments have been fully considered but are not persuasive for the reasons stated above and the teachings of Kanno.

The applicant argues "According to the present invention, the fibers serve as a resin crystallization promoter by annealing, and as a result crystallization of the amorphous resin can be observed. Promotion of crystallization of the resin enables an improvement in the strength, tribological characteristics and reinforcement effects of the resin composition." The prior art polymers are amorphous thermoplastics in that they are not disclosed as being crosslinked nor as being thermoset and are amorphous in that all polymers have amorphous character. The processing temperatures of the cited prior art are noted, such as that of example 1. It is not seen that the temperature used here is not within that of the instant claims nor that the prior art methods do not give the argued crystallization promotion. In any event, it is expected that the argued result is necessarily and inherently achieved in that the prior art uses the same or similar processing steps and the same components as required in the instant claims. Furthermore, it is not seen that the instant processing steps give a different composition, material, and part than those of the prior art nor that the prior art composition, material, and part does not fall within the scope of the instant claims. See MPEP 2112-2113. The applicant's arguments have been fully considered but are not persuasive for these reasons. This rejection is therefore maintained.

7. Claims 1-2, 7-13, and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 5458967 Kanno et al..

Kanno discloses carbon fibers from vapor phase growth methods having the instantly claimed diameters and aspect ratios at the abstract; column 1, lines 9-67, particularly 16-29 and

64-67; column 2, lines 1-67, particularly 1-60; column 3, lines 40-67; column 4, lines 1-67; and the remainder of the document. Since the components of the patentee are those of the instant claims, they are expected to necessarily give the instantly claimed crystallization promotion and therefore X-ray peaks when they are in the resins of the patentee. All resins have amorphous character. The exemplified kneading temperatures read on the instantly claimed annealing. The instant claims are directed to the compositions per se, not the methods of making them. It is not seen that the annealing temperature range of the reference gives a materially different product than that of the instant claims. There is no probative evidence that the products of the patentee are different from those of the instant claims even if the annealing temperature of the patentee does not fall within the scope of the instant claims. See MPEP 2113. Since the compositions of the patentee are otherwise those of the instant claims, they are expected to inherently have the tribology of the instant claim 17. The articles of the patentee are those of the instant claim 18.

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to use the instantly claimed ingredients and combinations thereof in the compositions of the patentee and the instantly claimed aspect ratio in the carbon fiber of the patentee because these parameters are disclosed by the patentee and would have been expected to give the properties discussed by the patentee.

The argued examples and comparative examples are not commensurate in scope with the instant claims and the cited prior art. The applicant's arguments have been fully considered but are not persuasive for the reasons stated above and the teachings of Kanno.

The applicant argues "According to the present invention, the fibers serve as a resin crystallization promoter by

annealing, and as a result crystallization of the amorphous resin can be observed. Promotion of crystallization of the resin enables an improvement in the strength, tribological characteristics and reinforcement effects of the resin composition.” The prior art polymers are amorphous thermoplastics in that they are not disclosed as being crosslinked nor as being thermoset and are amorphous in that all polymers have amorphous character. The processing temperatures of the cited prior art are noted, such as that of example 1. It is not seen that the temperature used here is not within that of the instant claims nor that the prior art methods do not give the argued crystallization promotion. In any event, it is expected that the argued result is necessarily and inherently achieved in that the prior art uses the same or similar processing steps and the same components as required in the instant claims. Furthermore, it is not seen that the instant processing steps give a different composition, material, and part than those of the prior art nor that the prior art composition, material, and part does not fall within the scope of the instant claims. See MPEP 2112-2113. The applicant’s arguments have been fully considered but are not persuasive for these reasons. This rejection is therefore maintained.

8. Claims 1, 7-13, and 15-18 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat. Application Publication 2003/0055154 Urata.

Urata discloses the instantly claimed inventions at the entire document, particularly the abstract and sections [0002] which falls within the scope of the claimed part, [0009]-[0018], [0025]-[0086], and the claims, particularly [0012] of which the thermoplastic resins are necessarily amorphous because all polymers have amorphous segments, [0013] which discloses kneading, [0028], [0034]-[0036] which includes specified amorphous polyamides, [0040][0042] which encompasses the instantly claimed carbon fibers, [0049], and examples 1-6, particularly

the kneading temperatures which appear to fall within the scope of those of the instant claims. The disclosed thermoplastics necessarily contain amorphous segments, all polymers do, and therefore fall within the scope of “amorphous” of the instant claims. The carbon fibers of the reference fall within the scope of those of the instant claims. The applicant has argued “According to the present invention, the fibers serve as a resin crystallization promoter by annealing, and as a result crystallization of the amorphous resin can be observed. Promotion of crystallization of the resin enables an improvement in the strength, tribological characteristics and reinforcement effects of the resin composition.” The prior art polymers are amorphous thermoplastics. The processing temperatures of the cited prior art are noted, such as that of the examples. It is not seen that the temperatures used in the examples are not within those of the instant claims nor that the prior art processes do not give the argued crystallization promotion and other claimed properties. In any event, it is expected that the argued result is necessarily and inherently achieved in that the prior art uses the same or similar processing steps and the same components as required in the instant claims. Furthermore, it is not seen that the instant processing steps give a different composition, material, and part than those of the prior art nor that the prior art composition, material, and part does not fall within the scope of the instant claims. See MPEP 2112-2113.

9. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art considered does not disclose the invention of the instant claim 3 nor provide rationale for modifying the prior art inventions into the invention of the instant claim 3.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick D. Niland whose telephone number is 571-272-1121. The examiner can normally be reached on Monday to Thursday from 10 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Patrick D Niland/  
Primary Examiner  
Art Unit 1796